AMENDMENTS TO THE SPECIFICATION

Please replace the paragraph beginning at page 12, line 20, with the following rewritten paragraph:

Next, operation of the first embodiment of the present invention is explained. For example, in case a failure occurs at the pumping light source 4 in the first light source for Raman amplification 1_1, signal light is transmitted from the first light source for Raman amplification 1_1 onward in a state that the signal light output level and its wavelength characteristic are ~~abnormal~~deteriorated. However, by making the spare pumping light source 12 in the "n" th light source for Raman amplification 1_n work, the deterioration caused by the pumping light source 4 is ~~corrected~~compensated, and the normal signal light output level and the normal wavelength characteristic can be recovered.

Please replace the paragraph beginning at page 13, line 25, with the following rewritten paragraph:

In Figs. 2 (b) and 3 (b) of the present invention, a case, in which a pumping light source of wavelength λ 2 in the second light source for Raman amplification had a failure, is explained. In this case, signal light is transmitted from the second light source for Raman amplification onward in a state that the signal light output level and its wavelength characteristic are ~~abnormal~~deteriorated. However, by making a spare pumping light source of the same wavelength λ 2 in the "n"th light source for Raman amplification work, the deterioration caused by the pumping light source in the second light source for Raman amplification is ~~corrected~~compensated, and the normal signal light output level and the normal wavelength characteristic can be recovered.

Please replace the paragraph beginning at page 14, line 26, with the following rewritten paragraph:

In the present invention, a case, in which two wavelengths are used for the pumping light sources, is explained. However, the number of the wavelengths is not limited to two, and three or more wavelengths can be used, and the deterioration occurring in the signal light can be ~~corrected~~recovered to a normal state, by ~~an~~the operation ~~similar to~~ like that mentioned above.

Please replace the paragraph beginning at page 16, line 27, with the following rewritten paragraph:

Next, a second embodiment of the present invention is explained. Fig. 5 is a block diagram showing a structure of an optical transmission system of the second embodiment of the present invention. In the second embodiment of the present invention, the structures of the light sources for Raman amplification 1_1 to 1_{n-1} (not shown) are the same ones as in the first embodiment. Further, the structure of the light source for Raman amplification $1_{n'}$ is the same as that of the light source for Raman amplification 1_1 and is different from that of the light source for Raman amplification 1_n of the first embodiment. That is, for the second embodiment, a light source for Raman amplification 19 specialized only for redundancy is provided additionally. As shown in Fig. 5, the light source for Raman amplification 19 ~~includes~~consists of spare pumping light sources 20 and 21 for redundancy, an optical multiplexer 22 that multiplexes the pumping light emitted from the spare pumping light sources 20 and 21, an optical multiplexer 23 that inputs the multiplexed pumping light to an optical transmission line 2, a control circuit 24 for controlling the spare pumping light sources 20 and 21, and an optical isolator 25.

Please replace the paragraph beginning at page 18, line 2, with the following rewritten paragraph:

As shown in Fig. 6, the light source for Raman amplification 28 having redundancy provides a pumping light source 29 for emitting pumping light having wavelength λ 1, a spare pumping light source 30 for emitting pumping light having wavelength λ 1, a pumping light source 31 for emitting pumping light having wavelength λ 2, a spare pumping light source 32 for emitting pumping light having wavelength λ 2, an optical coupler 33 that couples the pumping light of wavelength λ 1 emitted from the pumping light source 29 and the spare pumping light source 30, an optical coupler 34 that couples the pumping light of wavelength λ 2 emitted from the pumping light source 31 and the spare pumping light source 32, and an optical multiplexer 35 that multiplexes the pumping light of wavelengths λ 1 and λ 2 and splits the multiplexed pumping light. The split pumping light is inputted to the upstream and downstream optical transmission lines 26 and 27 respectively via respective optical multiplexers. In Fig. 6, a control circuit and optical isolators are also shown. By using the light source for Raman amplification 28 at the "n"th position in the upstream and downstream optical transmission lines, the same effect as the first embodiment can be obtained in the third embodiment of the present invention. In this embodiment, for each of the first to "n-1"th

positions, a light sources for Raman amplification, in which the spare pumping light sources 30 and 31 are not provided in the light sources for Raman amplification, areis used.

Please replace the paragraph beginning at page 19, line 6, with the following rewritten paragraph:

As shown in Fig. 7, the light source for Raman amplification 36 having redundancy provides a pumping light source 37 for emitting pumping light having wavelength λ 1, a pumping light source 38 for emitting pumping light having wavelength λ 2, a spare pumping light source 39 for emitting pumping light having wavelength λ 1, a spare pumping light source 40 for emitting pumping light having wavelength λ 2, an optical multiplexer 41 that multiplexes the pumping light of wavelengths λ 1 and λ 2 emitted from the pumping light [[source]] sources 37 and 38, an optical multiplexer 42 that multiplexes the pumping light of wavelengths λ 1 and λ 2 emitted from the spare pumping light sources 39 and 40, an optical multiplexer 43 that multiplexes the pumping light from the optical multiplexers 41 and 42 and splits the multiplexed pumping light. The split pumping light is inputted to the upstream optical transmission line 26 and the downstream optical transmission line 27 respectively via respective optical multiplexers. In Fig. 7, a control circuit and optical isolators are also shown. By using the light source for Raman amplification 36 at the "n"th position in the upstream and downstream optical transmission lines, the same effect as the first embodiment can be obtained in the fourth embodiment of the present invention. In this embodiment, at for each of the first to "n - 1"th positions, a light sources for Raman amplification, in which the spare pumping light sources 39 and 40 are not provided in the light sources for Raman amplification, areis used.